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#### ABSTRACT

An audio type signal is encoded. The signal is first divided into bands. For each band, a yardstick signal element is selected. The yardstick may be the signal element having the largest magnitude in the band, the second largest, closest to the median magnitude, or having some other selected magnitude. This magnitude is used for various purposes, including assigning bits to the different bands, and for establishing reconstruction levels within a band. The magnitude of non yardstick signal elements is also quantized. The encoded signal is also decoded. Apparatus for both encoding and decoding are also disclosed. The location of the yardstick element within its band may also be recorded and encoded, and used for efficiently allocating bits to non-yardstick signal elements. Split bands may be established, such that each split band includes a yardstick signal element and each full band includes a major and a minor yardstick signal element.